

IN THE CLAIMS:

1 (Currently Amended). A printer for printing between a print roller and a print head, comprising:

a print head alignment system including:

a print roller assembly having a print roller mounted thereon and at least one stop;

a print head support assembly having a print head mounted thereon and at least one detent, a surface of said detent engaging a surface of said stop to maintain alignment of said print head with said print roller; and

an actuating assembly associated with one of said print head support assembly and said print roller assembly for movement thereof so as to back one of the detent and the stop away from the other of the detent and the stop before moving the one of ~~the~~ said print head support assembly and ~~the~~ said print roller assembly so as to provide an access space between said print head and said print roller for allowing print media to be removed and inserted.

2 (Original). The printer of claim 1 wherein the actuating assembly is connected to move said print head support assembly and operates to back said detent off of said stop before moving at least one side of the print head away from the print roller to provide the access space.

3 (Original). The printer of claim 2 wherein said print head support assembly includes a pivot frame pivotally attached toward one end to pivot about a pivot axis.

4 (Original). The printer of claim 3 wherein said pivot frame includes two spaced apart wheels rotatably attached thereto.

5 (Original). The printer of claim 4 wherein said print head support assembly includes a heat sink to which said print head is mounted, said heat sink is mounted for movement relative to said pivot frame to adjust a distance between said print head and said pivot axis.

6 (Original). The printer of claim 4 wherein said actuating assembly includes a print head elevator positioned beneath said pivot frame and having spaced apart rails on which said wheels are supported.

7 (Original). The printer of claim 6 wherein said actuating assembly includes a manual actuator for moving said print head elevator relative to said print head support assembly.

8 (Original). The printer of claim 2, further comprising a stop located below a first side of said print head support assembly to limit downward movement of an inner side of the print head away from said print roller while an outer side of the print head moves to create the access space.

9 (Original). The printer of claim 8 wherein said print head support assembly includes a pivot frame that pivots about a first axis, and said print head is pivotally connected with said pivot frame to pivot about a second axis.

10 (Original). The printer of claim 1 wherein the surface of the detent and the surface of the stop surface are engaged in a manner that permits the print head to float relative to the print roller during operation when the surface of the detent moves along the surface of the stop.

11 (Original). The printer of claim 10 wherein the print head support assembly includes a biasing member for urging the print head toward the print roller.

12 (Original). The printer of claim 1 wherein the print head support assembly includes spaced apart lateral guide members that interact with the lateral guide portions of the print roller assembly to orient the print head along an axis of the print roller.

13 (Original). The printer of claim 1 wherein said actuating assembly includes a movable cam surface that interacts with a lever.

14 (Original). The printer of claim 1 wherein the actuating assembly is connected to move said print roller assembly and operates to back said stop off of said detent before moving at least one side of the print roller away from the print head to provide the access space.

15 (Original). The printer of claim 14 wherein said actuating assembly includes a movable cam surface that interacts with a lever.

16 (Original). A print head alignment system, comprising:

- a frame;

- a print roller support extending from said frame and having at least one stop and a print roller;

- a print head support assembly including a pivot frame pivotally attached toward one end to pivot around a pivot axis, two spaced apart wheels rotatably attached to said pivot frame, and a heat sink supporting a print head and having at least one detent, said heat sink mounted for movement relative to said pivot frame to permit a distance between the print head and the pivot axis to be varied; and

- a print head elevator having two spaced apart rails for supporting said spaced apart wheels, each of said spaced apart rails including a respective ramp portion, said print head elevator being moveable relative to said pivot frame in a first direction causing said wheels to ride up said ramp portions to elevate said print head and heat sink and place said at least one detent into vertical alignment with said at least one stop.

17 (Original). The print head alignment system of claim 16, further comprising a manual actuator associated with said print head elevator for effecting movement of said print head elevator.

18 (Original). The print head alignment system of claim 16 wherein a biasing member is positioned between said heat sink and a forward portion of said pivot frame to urge said print head upward toward said print roller.

19 (Original). The print head alignment system of claim 16 wherein said print head elevator is movable in a second direction causing said wheels to ride down said ramp portions such that at least one side of the print head moves downward from the print roller creating an access space between the print roller and print head enabling print media to be inserted or removed.

20 (Original). The print head alignment system of claim 19 wherein a lever is positioned between said print head elevator and said heat sink, a portion of said print head elevator moves said lever when said print head elevator moves in the second direction and said lever responsively pulls said heat sink toward said pivot frame, thereby backing the detent off from the stop before the access space is created.

21 (Original). The print head alignment system of claim 16 wherein a biasing member is positioned to urge said heat sink away from said pivot frame.

22 (Original). The print head alignment system of claim 21 wherein, after said at least one detent is moved into vertical alignment with said at least one stop, feeding of label stock between the print roller and print head causes said at least one detent to engage said at least one stop.

23 (Original). In a printer, a method of disengaging a print head support assembly and a print roller assembly, wherein said print roller assembly includes at least one substantially vertical stop surface engaged with at least one substantially vertical detent surface of said print head support assembly maintaining alignment of a print head and a print roller, said method comprising the steps of:

(a) moving one of said print head support assembly and said print roller assembly in a first direction to space said detent surface from said stop surface;

(b) after step (a), moving at least one side of said one of said print head support assembly and said print roller assembly in a second direction away from the other of said print head support assembly and said print roller assembly to provide an access space between said print head and said print roller for allowing print media to be removed and inserted.

24 (Original). The method of claim 23 wherein step (a) involves moving a lever to pull a portion of said one of said print head support assembly and said print roller assembly.

25 (Original). The method of claim 24 wherein said lever is moved by engagement with a cam surface.

26 (Original). The method of claim 25 wherein the cam surface is located on a sliding member that is moved during step (a).

27 (Original). The method of claim 26 wherein the said print head support assembly is moved and said sliding member comprises a print head elevator positioned below said print head support assembly and moved responsive to manual actuation of a handle.

28 (Original). The method of claim 23 wherein said first direction is substantially perpendicular to said second direction.

29 (New). A printer for printing between a print roller and a print head, comprising:
a print head alignment system including:

a print roller assembly having a print roller mounted thereon and at least one stop;
a print head support assembly having a print head mounted thereon and at least one detent, a surface of said detent engaging a surface of said stop to maintain alignment of said print head with said print roller when said print roller and said print head are oriented for printing; and

an actuating assembly associated with one of said print head support assembly and said print roller assembly for movement thereof so as to back one of the detent and the stop away from the other of the detent and the stop in a first direction before moving the one of said print head support assembly and said print roller assembly in a second direction so as to provide an access space between said print head and said print roller for allowing print-media to be removed and inserted, the first direction substantially perpendicular to the second direction.

30 (New). A printer for printing between a print roller and a print head, comprising:

a print head alignment system including:

a print roller assembly having a print roller mounted thereon and having a pair of spaced apart stops;

a print head support assembly having a print head mounted thereon and a pair of spaced apart detents aligned with said pair of spaced apart stops, each of said detents has a substantially planar surface engaged with a corresponding substantially planar surface of one of said stops to maintain alignment of said print head with said print roller when said print roller and print head are oriented for printing; and

an actuating assembly associated with one of said print head support assembly and said print roller assembly for movement thereof so as to back one of the pair detents and the pair of stops away from the other of the pair of detents and the pair of stops before moving the one of said print head support assembly and said print roller assembly so as to provide an access space between said print head and said print roller for allowing print media to be removed and inserted.